1856MNRAS..17....1D

ROYAL ASTRONOMICAL SOCIETY.

Vol. XVII. *November* 14, 1856. No. 1.

Manuel J. Johnson, Esq., President, in the Chair.

J. P. Radcliffe, Esq., Rudding Park, Yorkshire, was balloted for and duly elected a Fellow of the Society.

Occultation of Jupiter by the Moon. Observed at Canonbury November 8th, 1856. By Warren De la Rue, Esq., Ph.D. F.R.S.

Latitude 51° 32′ 40″·6 N.; longitude 23ˢ·24 W.

In consequence of the existence of intervening objects the first contact of the moon with the planet could not be observed in my observatory, but it was watched with a small achromatic of only one and a half inches aperture, with which, however, the time of contact might have been pretty accurately noted, had a chronometer been at hand, so excellent was the definition. But when the contact had fairly taken place, the planet had emerged from behind the surrounding objects and afforded me an opportunity of watching the progress of the moon's northern limb across the planet's disk with an excellent 2½ object-glass of Ross, magnifying 120 diameters and mounted equatoreally by Simms. With this instrument the moon's limb was estimated to extend to within 3″ of the southern edge of the dark southern belt of *Jupiter*, which had been found by previous micrometrical measurements to be distant 13″·95 from his southern edge, so that the overlapping would be about 11″. I was much struck with the pale and evidently greenish hue which the planet presented in contrast with the moon's conspicuously warmer tints, and also with the much greater brightness of most portions of the lunar surface; for *Jupiter* was not even quite so bright as *Plato*, which by comparison appeared of a brown colour. I did not wait to observe the moment of emergence with the achromatic, as I hoped to be able to do so with my Newtonian equatoreal, but I could not get a sight of the planet until the moon was fairly separated by a streak of black sky; I was, however, able to confirm most satisfactorily the observations in regard to the relative tint and brilliancy of *Jupiter* as compared

Downloaded from http://mnras.oxfordjournals.org/ at Library of Medical Center of Fudan University on May 4, 2015

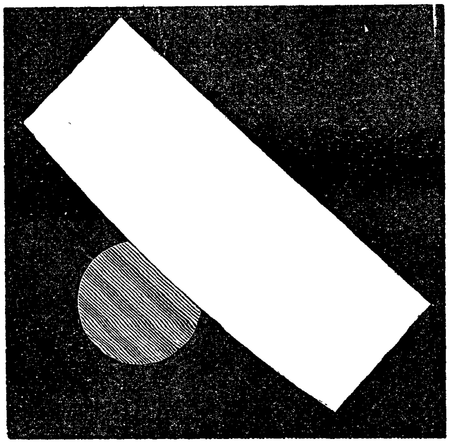
© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1856MNRAS..17....2B

with the moon, made with the smaller instrument. The shadow of the first satellite on the dark southern belt was distinctly seen and had been observed in the 2½-inch telescope; and at 4^h 22^m 26^s·9 local sidereal time, the fourth satellite (the only one visible) reappeared from behind the moon at about 2″ from its limb; the disappearance of this satellite unfortunately could not be noted for the reason before mentioned.

Observation of the Occultation of Jupiter by the Moon, November 8, 1856. By W. Huggins, Esq.

"*Jupiter* appeared to run along the edge of the moon without contact for nearly a minute.



First Apparent Contact,
4^h 30^m 3^s G.S.T.

Last Apparent Contact,
4^h 36^m 38^s G.S.T.

"Edge of moon on *Jupiter* appeared to approach the upper equatoreal belt within about 4″.

"Dusky appearance of *Jupiter* as contrasted with the moon very marked.

"First satellite very visible.

"Fourth satellite not seen during the occultation.

"Telescope, 5 inches aperture; power, 160.

"*Upper Tulse Hill.*"

Observation of the Occultation of Jupiter, 8th November, 1856. By T. W. Burr, Esq.

"In consequence of the interest excited by the phenomena on this occasion, I am induced to add my notes of the occurrence to the accounts already before the Society.

"It was difficult to determine when the occultation really commenced, as the planet appeared to graze along the moon's limb for some little time at a part which was still rugged; but I believe the immersion may be stated to have occurred at 4^h 28^m 54^s local sidereal time. A slight cloud then formed, but was speedily dissipated, and at 4^h 30^m 18^s a distinct impression had been made on the planet's disk, which was then immediately under *Plato*, where the moon's limb was fully illuminated. The emersion I consider took place at 4^h 35^m 16^s, when a fine, but palpable, dark line became visible between the disks. This line was not visible before, but the line of demarcation between the two bodies and

Downloaded from http://mnras.oxfordjournals.org/ at Library of Medical Center of Fudan University on May 4, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System